



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/836.369	10/20/1997	VOLKER SCHMIDT	RSG 8379 US	6185
7590 09/02/2004			EXAMINER	
Law Office of Charles E. Krueger P.O. Box 5607 Walnut Creek, CA 94596			JAGAN, MIRELLYS	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/836,369

Applicant(s)

SCHMIDT, VOLKER

Examiner

Mirellys Jagan

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3 and 82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,368,392 to Hollander et al [hereinafter Hollander] in view of the publication titled "Unique Applications of Computer-Generated Diffractive Optical Elements" by Mokry.

Hollander discloses a device for temperature measurement comprising:

a radiometer having a detector and an optical system for imaging the heat radiation emanating from a measurement spot onto the detector, and

a sighting arrangement having a laser aligned to illuminate an optical system to produce a light pattern that identifies and outlines the position and size of the measurement spot by means of visible light; wherein the optical system is formed by a beamsplitter, and the optical system generates a circular arrangement of more than two beams to outline and identify the energy zone (E).

Hollander does not disclose the optical system of the sighting arrangement being a diffractive optical system.

Mokry discloses that diffractive optical systems formed by a diffractive element are commonly used in the art as laser beamsplitters. Mokry teaches that using a diffractive optical

Art Unit: 2859

system as a laser beamsplitter in place of many conventional components in optical systems is beneficial since the diffractive optical system is more lightweight and less costly (see the abstract; lines 1-4 of section 1 ("Introduction"); lines 1-3 of section 4.2 ("DOE As Beamsplitter"); and section 5 ("Conclusions")).

Therefore, referring to claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device disclosed by Hollander by replacing the beamsplitter optical system with a diffractive optical system, as disclosed by Mokry, in order to make the device lighter in weight and less costly to manufacture.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hollander and Mokry, as applied to claims 1 and 82 above, and further in view of the prior art disclosed in U.S. Patent 5,477,383 to Jain.

Hollander and Mokry disclose a device having all of the limitations of claim 3, as stated above in paragraph 2, except for the diffractive optical system being formed by a holographic element.

Jain discloses that diffractive optical elements have traditionally been made in the art using holographic techniques, thereby forming a holographic element as the diffractive optical element (see column 11, lines 3-13).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device disclosed by Hollander and Mokry by using a holographic element to form the diffractive optical system, as disclosed by Jain, since it is well known in the art that a diffractive optical system is formed by a holographic element.

Response to Arguments

4. Applicant's arguments filed 5/21/04 have been fully considered but they are not persuasive.

5. Applicant's arguments regarding the Board's decision that Hollander fails to teach or suggest using a diffractive optical system are not persuasive since the rejections which were presented to the Board were based solely on Hollander, whereas the present rejections are based on Hollander and Mokry. The Board's reversal of the rejection over Hollander was based on the lack of additional evidence, such as one additional prior art reference, showing why an artisan would be persuaded to choose a diffractive optical system for the device of Hollander (see page 5 of the opinion). In this case, this additional evidence is shown by Mokry, which teaches ****. Therefore, the teaching, suggestion, and motivation to modify Hollander with Mokry is found in the Mokry reference. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Furthermore, Applicant's arguments that there is no teaching in Mokry that using a diffractive optical element would make the radiometer system lighter and less costly to manufacture are not persuasive since Mokry discloses that a diffractive optical element is more lightweight and less costly than conventional optical components such as beamsplitters in optical systems, and is therefore useful in place of such conventional optical components. Therefore, this teaching that a diffractive optical element is more lightweight and less costly than conventional optical components would motivate the artisan to use a diffractive element in place of a beamsplitter in any optical system using a conventional beamsplitter, such as the beamsplitter of

Art Unit: 2859

Hollander (see abstract; lines 1-4 of section 1 (“Introduction”); lines 1-3 of section 4.2 (“DOE As Beamsplitter”); and section 5 (“Conclusions”)).

In addition, Applicant’s arguments that, since Hollander does not use a diffractive optical element as taught by Mokry, it would not have been obvious to the artisan to use a diffractive optical element in a radiometer are not persuasive since the fact that Hollander does not use the diffractive optical element taught by Mokry does not preclude an artisan(s) from finding it obvious to use a diffractive optical element in a radiometer at the art at the time the present invention was made.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

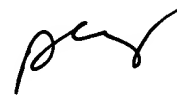
Art Unit: 2859

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mirellys Jagan whose telephone number is 571-272-2247. The examiner can normally be reached on Monday-Friday from 9AM to 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ
August 31, 2004



Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800